

2. LITERATURE REVIEW

2.1 Introduction

The earliest dates of Iron Age occupation in Botswana come from Maunatlala site dated ca 300 to 400 A.D. in the east central side of the country. The site has evidence of short-term occupation with little investment on construction (Denbow 1983a; 1986; 1999; Kiyaga-Mulindwa 1993; Segobye 1998). Dense Early Iron Age settlements on the Shashe-Limpopo basin began around the eighth century A.D. in eastern Botswana and in the northern region of South Africa as well in the southern parts of Zimbabwe (Maggs 1984; Hall 1987; Denbow 1982; 1983a; 1984a; 1986; 1999; Kiyaga-Mulindwa 1993). Prior to this date there is hardly any evidence to suggest long-term occupation of this interior region by Iron Age farmers and herders. Debates on where the people came from are still ongoing, and are beyond the scope of this research, but there is a general agreement that they came from somewhere in east and central Africa.

Another question is how these groups traveled to reach southern Africa. Different views regarding this question have been expressed with some anthropologists and archaeologists arguing for multiple bands or waves of different people coming around the same time but using different routes. The other school of thought argues that a group of Iron Age farmers seeking better life conditions kept on moving down south slowly (Denbow 1983a; 1990; Maggs 1984; Huffman 1986; 1989). These people would have settled at different places for some years and then relocated southwards once conditions became unfavorable (Denbow 1983a; 1990; Maggs 1984; Reid et al. 1998). By so doing they would have eventually arrived in southeastern Africa to become what we today recognise as Early Iron Age communities.

Evidence in the form of archaeological sites, pottery and other artifacts indicates that shortly before the turn of the eighth century A.D., the first group of Bantu-speaking migrants had reached southwestern Zimbabwe and the northern parts of South Africa. These were the people responsible for making the Zhizo type of ceramics and hence are called the Zhizo people or communities (Huffman 1986; Denbow and Wilmsen 1986; Hall 1987; Denbow 1990; Kiyaga-Mulindwa 1993; Segobye 1998). Between A.D. 700 and A.D. 900, Taukome ceramics were well established in eastern Botswana by people

with very close links or relations to the people making Zhizo ceramics elsewhere in the region (Denbow 1983a; Huffman 1986; 1989). Whether the Taukome pottery people were an offshoot of the Zhizo pottery people has not yet been clearly proved.

The Kgalagadi desert covers about 84% of Botswana and could not have supported long term and large-scale human occupation. The eastern side of Botswana, on the other hand, is more fertile than the vast western desert. The soils in the thin eastern strip of land are slightly more fertile than the western sands and the annual rainfall can to some extent support food producing activities (Cooke 1982; Denbow 1983a; Denbow and Wilmsen 1983; Segobye 1989; Reid et al. 1998). Despite being a better area than the west, rainfall in the east is unreliable in terms of its timing and amounts. Periods of draught are common. The soils have rather poor fertility and water retention qualities are not very good (Denbow 1983a; Segobye 1989) and as a result crop failure is common. Risks of crop failure are much higher and more common as compared to problems and difficulties of animal husbandry. Thus the area is better suited for animal production than it is for crop production (Denbow 1979; 1984a; Denbow and Wilmsen 1983). Despite conditions in eastern Botswana, the area is currently the most populated. The same kind of situation appears to have been the case in the past with most of the prehistoric settlements being concentrated along the east (Denbow and Wilmsen 1983; Denbow 1986; Segobye 1998).

The Toutswe type-sites and those of the later traditions like Mapungubwe and Zimbabwe (and even the more recent Moloko) stretch along the eastern strip of land in Botswana. Prehistoric settlements along eastern and northern Botswana have been divided into two major groups: those on the Kalahari sandveld and those on the eastern hardveld (Denbow and Wilmsen 1983; Denbow 1986; 1984b). The eastern hardveld happens to be associated with Toutswe settlements and it has a higher number of archaeological sites compared to the sandveld.

Research on the Toutswe Tradition dates back to the 1930s when Laidler made surface collections from Toutswe Mogala having been informed of this 'magnificent hill of the gods' by the Ellenbergers (Lepionka 1978; Denbow 1983a; Campbell 1998; Reid 1998; Segobye 1998). Laidler's intention was to establish ceramic typologies from southern Zimbabwe, eastern Botswana and northern Transvaal in South Africa. The ceramic clusters could then be used to establish ancestral links to Bantu ethnic groups in

the region (Denbow 1983a; Campbell 1998; Segobye 1989). Lepionka did the very first excavations at this site almost forty years later in 1970. Lepionka's aim was to find out whether Toutswe Mogala was an Early Iron Age or Late Iron Age site. His approach was similar to that of Laidler in that he treated the site as a single polity occurring on the margins on the Kgalagadi desert. During his expedition, more than twenty burials were found (Lepionka 1971; 1978; 1977; De Villiers 1976; Murphy 1996).

It was not until the late 1970s when Denbow identified at least 320 more archaeological sites with Toutswe Mogala characteristics within a confined locality, that people began to appreciate the complexity of this archaeological phenomenon (Denbow 1979; 1982; 1983a; Campbell 1998; Reid 1998; Segobye 1998). It was then that the idea of Toutswe Tradition and Toutswe communities/people was developed. Lepionka's excavations were the only source of reference at the time when Denbow began excavating again at Toutswe Mogala and at other related sites of Taukome, Thatwane, Lechana, Maipetwane, Serokolwane and Kgaswe B-55 in the late 1970s and early 1980s (Denbow 1982; 1983a; 1986; Reid 1998).

Denbow used aerial photography to identify other sites in the vicinity of Toutswe Mogala. Vitrified cow dung and buffalo grass became key factors in identifying sites from aerial photographs (Denbow 1979; 1983a; 1983b; Campbell 1998). Vitrification occurs when deposits of cow dung are burnt at high temperatures on locations where cattle kraals had been previously located (Thy et al. 1995; Reid 1998). In some instances, these vitrified deposits have altered the soil's chemical composition by increasing its acidic content, and a grass species called '*Cenchrus ciliaris*' or buffalo grass invades and monopolizes the vegetation on this acid soil. Buffalo grass localities appear as 'bald spots' on aerial photographs (Denbow 1979; 1983a; Hall 1987; Reid 1998). Vitrified cow dung is not only important in identifying archaeological sites in eastern Botswana, but it is also very useful in the reconstruction of the cattle population owned by the Toutswe people. Buffalo grass does not necessarily equate to Toutswe sites but it is a feature always associated with deep middens, which in eastern Botswana happens to be Toutswe sites (Denbow: personal communication).

By the late 1970s, Denbow's survey and excavation results revealed that the Toutswe complex was actually an Early Iron Age phenomenon, which occurred sometime between A.D. 700 and A.D. 1300. He further argued that its earliest ceramic

assemblages were somewhat similar to those of the Zhizo Tradition on the southwestern part of the modern day Zimbabwe (Denbow 1983a; Maggs 1984; Huffman 1986; 1989; Reid 1998; Reid et al. 1998). He argued that different communities who shared ideas and information across space made the pottery. Manufacturing and decoration techniques were basically similar suggesting a strong sharing of ideas between the Taukome and Zhizo people.

The layout of Toutswe settlements presents a three-tier pattern of hierarchy. The pattern is based on size, location and length of occupation of a site (Denbow 1982; 1983a; 1984a; 1986; 1990; 1999; Hall 1987; Segobye 1989; 1994; 1998; Kiyaga-Mulindwa 1993). At the lowest level are class 1 sites where middens range between 1000 and 5000 square meters. Evidence from some class 1 sites strongly indicates that these sites were occupied for a period often not exceeding 50 years (Denbow 1983a; 1984; Reid 1998). They often have shallow dung deposits ranging between 10 and 25 cm. Another characteristic feature of class 1 sites is that they appear to have been occupied only once with no subsequent reoccupation (Denbow 1982; 1983a; 1984; Reid 1998). From those at which burials were recovered, the burials were almost always inside cattle kraals e.g. at Lechana (Denbow 1979b; 1983a). Class 2 sites were much larger and indicate periods of much longer occupation (200-300 years) by comparison to class 1 sites. Successive re-building, as seen from some stratigraphic layouts, is an indication of reoccupation of these sites at different times in the past. Their middens are on average 10 000 square meters in size and around 150 cm in depth (Denbow 1982; 1983a). Some of these sites have small stonewalls associated with later periods of occupation. Middens on Class 3 sites range between 80 000 and 100 000 square meters and exceed 150 cm in depth. Cultural deposits on these sites indicate that the sites were reoccupied at different periods. To date, only three class 3 settlements are known namely: Toutswe Mogala, Bosutswe and Shoshong, all of which are at least 100 km away from each other (Denbow 1982; 1983a; 1990; 1999; Segobye 1989; 1994; 1998).

Evidence for mixed farming by Toutswe Tradition societies comes in form of bones of cattle, sheep and goats from many of the sites as well carbonized remains of sorghum, beans and cowpeas from Thatswane and Kgaswe B-55 (Welbourne 1975; Denbow 1983a; 1986; 1999; Plug 1996; Reid 1998). In recent years, few chicken bones (*Gallus domesticus*) of most probably Indonesian origin were found at different levels of

Bosutswe (Denbow 1999). European rats (*Rattus rattus*) were also found though they would not have formed part of the food mainstay (Plug 1996; Denbow 1990; 1999). Wild fauna and flora made a significant contribution to the diet at most sites. It is therefore not far fetched to argue that the Toutswe people had a wide range of food resources (Welbourne 1975; Denbow 1983a; 1999; Plug 1996; Reid 1998; Reid et al. 1998; Segobye 1998).

During the Taukome phase ceramics were mostly decorated with single, and very rarely multiple, bands placed higher on the neck. The bands were of incision lines filled with diagonal combstamps (Denbow 1983a; 1990). Occasionally, the vessels were decorated on the body with triangles, which were not filled or sometimes they were decorated with single incision or combstamp lines. Plain beakers were more common than decorated ones during this phase.

The decoration technique remained as combstamping but the motif changed slightly and new types of vessels were introduced during the Toutswe phase. The bands around the neck were thinner and placed lower than previously. The triangles on the body were now always filled with either incision lines or comb stamps (Lepionka 1971; 1978; Denbow 1983a). Beakers were decorated with zigzag incision lines on the body filled with comb stamps. On rare occasions, multiple incision lines were placed at the bottom of the beakers. There were plain bowls and thick-rimmed bowls. On the lips of thick-rimmed bowls a continuous or discontinuous band of comb stamps was the main form of decoration (Denbow 1983a).

The K2 and Mapungubwe complex has been known and investigated in detail and in isolation from the rest of the Shashe-Limpopo area for many decades (e.g. Galloway 1937; 1959; Gardner 1965; Huffman 1986; 1989; Hall 1987; Steyn 1994; Meyer 1998). This was partly due to the misconception that the rather dry grasslands with unreliable rainfall on the fringes of the Kalahari had not been occupied by farmers/Iron Age people in prehistoric times. Most of the earliest anthropological and historical documents about Botswana assumed that the only societies to have ever settled in the area were the Basarwa hunter-gatherers (Denbow 1983a; 1999; Segobye 1989; 1994; 1998; Kiyaga-Mulindwa 1993).

Evidence in the form of ceramics, beads, metal implements, ornaments etc, indicates an active interaction between the Toutswe people and those of other traditions

in northwest Botswana, southern Zimbabwe and northern South Africa. For instance, earlier ceramics from Taukome (A.D. 700) resemble those of Zhizo in Zimbabwe (Denbow 1982; 1983a; 1984b; Huffman 1986; 1989; Reid 1998). Sites closest to the Shashe-Limpopo confluence have been found with ceramics similar to those from the Mapungubwe complex while sites on the southern frontiers of the Toutswe extent suggest ties with Eiland ceramics coming in from the south (Denbow 1983a; Huffman 1989; Reid 1998; Segobye 1998). In addition to these indigenous artifacts is a whole array of glass beads coming in from the Indian Ocean trade. By 1000 AD glass beads from the Far East had reached places like Kgaswe B-55 (Denbow 1982; Segobye 1998). Gold copper and other metal wares were also in circulation throughout the region e.g., a gold bracelet had found its way to Bosutswe by 1000 AD from sources near Francistown, more than 200km away (Denbow: personal communication). Figure 2.1 shows some of the Toutswe type-sites mentioned in the text.

2.2 Toutswemogala

Toutswemogala is located about 50km north of Palapye, a modern town in east central Botswana (Figure 2.1). It is a flat-topped narrow hill of approximately 50m at the highest point. The hill is approximately 700m long and its widest part is on the eastern section where its maximum diameter is over 100m (Figure 2.2). On the surface are several stone cairn features and a large semi-circular stonewall measuring about 15m at its widest (Lepionka 1971; Denbow 1983a). Within the wall are two circular pits filled with softer soil, one in the center and one near the wall. The pits were tentatively identified as fire pits. Lepionka excavated the site for the first time during the winter season of 1970 (Lepionka 1971; 1978; Welbourne 1975; Denbow 1983a; Segobye 1989; 1994; Reid 1998). His main intention was to find out if the site fell into the Early Iron Age or Late Iron Age sequence of the Shashe-Limpopo.

A series of excavation trenches were set up and excavated in arbitrary levels. It is currently difficult, if not impossible, to understand Lepionka's excavation trenches to identify where each burial was found because of the inexplicit manner in which he wrote his report. There are a lot inconsistencies in the manner in which he labeled burials and presumably other finds (Murphy 1996). For instance, the Lepionka (1977) report mentions different burials in terms of chronological burial numbers whereas the burials

were sent to De Villiers under a different identification system for analysis (Welbourne 1975; De Villiers 1976; Lepionka 1971; 1977; 1978; Murphy 1996). The two systems are unfortunately not easy to correlate or match. The author attempted to match burial descriptions given by Lepionka to skeletal descriptions given by De Villiers, but only a few were possible to match (e.g., Toutswe Mogala Burials 4 and 6). For example, Lepionka had labeled Toutswe Mogala Burial 4 in the current study as '5R135 first half burial at bedrock isolated skull, north end' (Lepionka 1971; 1978; De Villiers 1976). The remains are currently labeled in the format used by De Villiers and the author has since assigned the burials numbers that may not necessarily be consistent with Lepionka's. Special mentions are made where matches were possible to establish. The most unfortunate result of this is that most of the burials now lack information on burial styles. A general statement regarding the burials is that most, if not all of them, were horizontally flexed and oriented to the west.

A total of eight burials were found inside the wall (Lepionka 1971; 1977; Welbourne 1975). At the base of the central pit an adult burial was found in association with five complete pots. From the same burial, an iron bracelet and a piece of bone amulet were found. Two more burials were found outside the pits, an infant and a juvenile. The juvenile had been buried with a pot. In addition to these, an isolated right half of a skull was found close to the wall (Lepionka 1971; 1978). Several complete pots had been intentionally placed on hut floors. Among these were two of the same shape; one containing fine hematite powder and the other one containing remains of an infant (Lepionka 1971; 1977; 1978).

2.3 Taukome

Taukome is situated on a hilltop of about 70m in height, approximately 30km west of Toutswe Mogala (Figure 2.1) (Denbow 1982; 1983a; Hall 1987). It is an outcrop in basalt soils about 15km east of the Kgalagadi escarpment. The National Museum site number for Taukome is 26-B2-6. It is a class 2 site of the Toutswe settlement hierarchy (Denbow 1983a; 1984a; Reid 1998). Four small middens are situated on this hilltop alongside a large mound of approximately 70m in diameter. A semi-circular stonewall about 80m southeast of the mound is the only one of its kind on the hilltop. The wall is about 50 cm high and encloses an area of about 6 square meters. Taukome was first

excavated in 1979 by Denbow as part of his Ph. D. research work. Excavation trenches were all located on the northern half of the mound. A deposit of about 150 cm in depth was uncovered. The stratigraphy indicates that the site was occupied for approximately 300 years. Throughout the 300-year span, small kraals were built successively on top of each other. Charcoal samples collected at different levels were used to calculate radiocarbon dates (Denbow 1982; 1983a).

By comparison to results from Toutswe Mogala, it appears that the upper dung level (15-25 cm) at Taukome was deposited around the same time when the earliest deposits at Toutswe Mogala were being accumulated. A conclusion based on these dates is that, of all the Toutswe type settlements, Taukome was most probably the first to be occupied (Denbow 1983a; 1984; Segobye 1989; 1994; Reid 1998). Several features ranging from human burials to animal kraals were excavated. A total of five burials were excavated from this site.

2.4 Bosutswe

Bosutswe is a low flat-topped hill approximately 85 km north west of Serowe (Figure 2.1). The hill is approximately 200m long in the east-west dimension and 200m in a north-south axis (Denbow 1986; Plug 1996). From a few meters away, a small prominent midden in the center of the site can be seen (Figure 2.3). The politics and dynamics of Iron Age communities in eastern Botswana are best understood from the site of Bosutswe. This site was occupied almost continuously for a period of slightly over 1000 years and thus presents a clear and uninterrupted sequence of events all of which can be observed from a single stratigraphy (Denbow 1986; Plug 1996; Segobye 1998). Moreover, it presents us with a wide variety of evidence for social, political, economic and ritual activities. As mentioned earlier this is a class 3 site which means that it was not used for a single or few activities but instead it hosted a whole wide range of events carried out for survival.

The stratigraphic context of Bosutswe is one of the best in terms of indicating internal as well external dynamics from one tradition or population to the other in southern Africa. Excavations at Bosutswe uncovered over four meters of cultural deposits of which the bottom two meters provides strong evidence of occupation of the site by

people making Toutswe ceramics for a period of roughly 400 years (Denbow 1990; 1999).

Past occupation periods at Bosutswe have been divided into five phases. Denbow argues that during the first phase, the Zhizo decedents of the first group of Bantu speaking migrants from central and eastern Africa had reached Bosutswe shortly before A.D. 700. By A.D. 900, small settlements had been established in the neighboring hills at Mmadipudi, Kolokome and other places (Denbow 1990; 1999). This is termed the Taukome phase at Bosutswe.

By A.D. 1000 the second phase of occupation had been well established. This phase was marked by a substantial increase in the number of cattle and emphasis on social as well as political stratification, i.e. the beginning of what we today see as a three-tier settlement pattern, and thus the Toutswe phase had been developed. Furthermore, there was a substantial extent of interaction with outside communities as marked by the presence of cowry shells and glass beads from the Indian Ocean. The Toutswe period lasted up to around A.D. 1200. The Toutswe ceramics appear to have been developed from the earlier Taukome wares (Denbow 1983a; Huffman 1986; 1989).

The end of phase two and the beginning of phase three overlap. Phase three, which occurred between A.D. 1150-1300, is associated with the Mapungubwe period. Some major shifts within the internal structures of the communities occurred during this phase, for instance, cattle were now moved from the village centers to peripheral areas, a system that probably led to the concept of the modern day cattle post. Political and other important leaders now moved up the hill unlike in earlier periods when they were located in the valleys and low-lying lands. During this time, Bosutswe became incorporated into the western frontiers of the Mapungubwe hegemony in the Limpopo valley (Maggs 1984; Huffman 1986; Hall 1987; Denbow 1990; 1999). Ceramics with punctate decorations were introduced. A rather peculiar ash deposit has been found to occur consistently throughout the different excavation units. Denbow's (personal communication) interpretation of this is that the site may have been burned around A.D. 1300 marking the termination of the Mapungubwe phase and the beginning of the Zimbabwe phase.

The fourth phase lasted between A.D. 1300 and A.D. 1450 and is associated with the Zimbabwe period. During this period, only a small population of the local elite occupied the hilltop with subordinates down below. Deposits associated with the

Zimbabwe period are shallow and lack ornate artifacts normally associated with the rulers or elite. No elaborate stonewalls were built on the site during this phase and thereby strongly suggesting that the site had been reduced to a marginal and a far less important village (Denbow 1999). Ceramics continued to have punctate arcades and graphite finish was introduced. It is during this period that the earliest evidence of manufacturing ostrich eggshell beads on the site and the manufacture of bronze occurs. Cloth may have also been manufactured around this time as suggested by spindle whorls found. Gold appears around this time. The fifth and final phase of occupation has left very little archaeological evidence. This phase occurred around A.D. 1700 and did not last for too long. The seven semi-circular walls found today on the hilltop are associated with this phase. Its ceramics were presumably developed from the earlier punctate wares of the Mapungubwe and Zimbabwe periods (Huffman 1986; Denbow 1999). For further information regarding ceramic decoration techniques and motifs, the reader is referred to Denbow 1983a.

During the 1990 excavations at Bosutswe no burials were found, but instead an interesting artifact in the form of a gold bracelet was uncovered. However, the bangle came from the level associated with the Zimbabwe period. This is the only piece made from gold ever found on any of the Toutswe type settlements (Denbow: personal communication). The site was excavated for the second time in 2001. It was during this time that the first burial from the site was found and it remained the only burial from this site until 2002 when an additional 13 burials were excavated. Of these 13, it was decided that at least three were post-Toutswe as their graves appeared to have been dug into the earlier Toutswe deposits (i.e. the graves had been dug into Toutswe deposits which were already in existence). The decision was reached following discussions between the author and JR Denbow, the principal archaeologist working on the site. These were Bosutswe Burials 1, 2 and 10, which could have been from either the Mapungubwe or the Zimbabwe period. The burials have therefore been excluded from this study.

2.5 Thatswane

Thatswane is a class 2 site located approximately five kilometers south of Toutswe Mogala (Figure 2.1). On this site, vitrified dung deposits are inter-stratified with midden soils (Denbow 1982). The earliest date of this site was calculated to A.D. 925 ± 80 from samples obtained below a one meter thick deposit of vitrified dung. A burned

post from a grain bin at a higher level provided the latest date that was calculated to be A.D. 1110 ± 75. The entire grain bin had been burned and it contained well-preserved and carbonized remains of beans and sorghum (Denbow 1983a; 1990; Reid 1998). The site had been destroyed by burrowing animals (Figure 2.4) causing displacement of some artifacts and human bones. During the excavations, six burials were found.

Figure 2.1 Some Toutswe sites in east central Botswana

2.6 Dikalate

On a series of low lands and small hills to the north of Palapye, about 20km east of Toutswe Mogala (Figure 2.1), lies a number of archeological sites of different traditions. The sites were surveyed and excavated between 1998 and 1999 by Dr Andrew Reid (Reid 1999a; 1999b). The project was done as an archaeological reconnaissance of the area that was to be developed into a game park (Reid 1999a; 1999b). Of the several sites found, site 27-A2-18 is of relevance to the current study as it is the only one of Toutswe affinity and is the only one to have yielded human skeletal remains (Reid 1999a).

The main midden of the site is located on a plateau about two-thirds up the hill. It has a buffalo grass patch. Remnants of mud built grain storages presumably associated with latter communities fleeing the Difaqane wars (Reid 1999a; 1999b) are preserved underneath some rocks. A shallow grave of an infant was excavated by the author in the middle of this site.

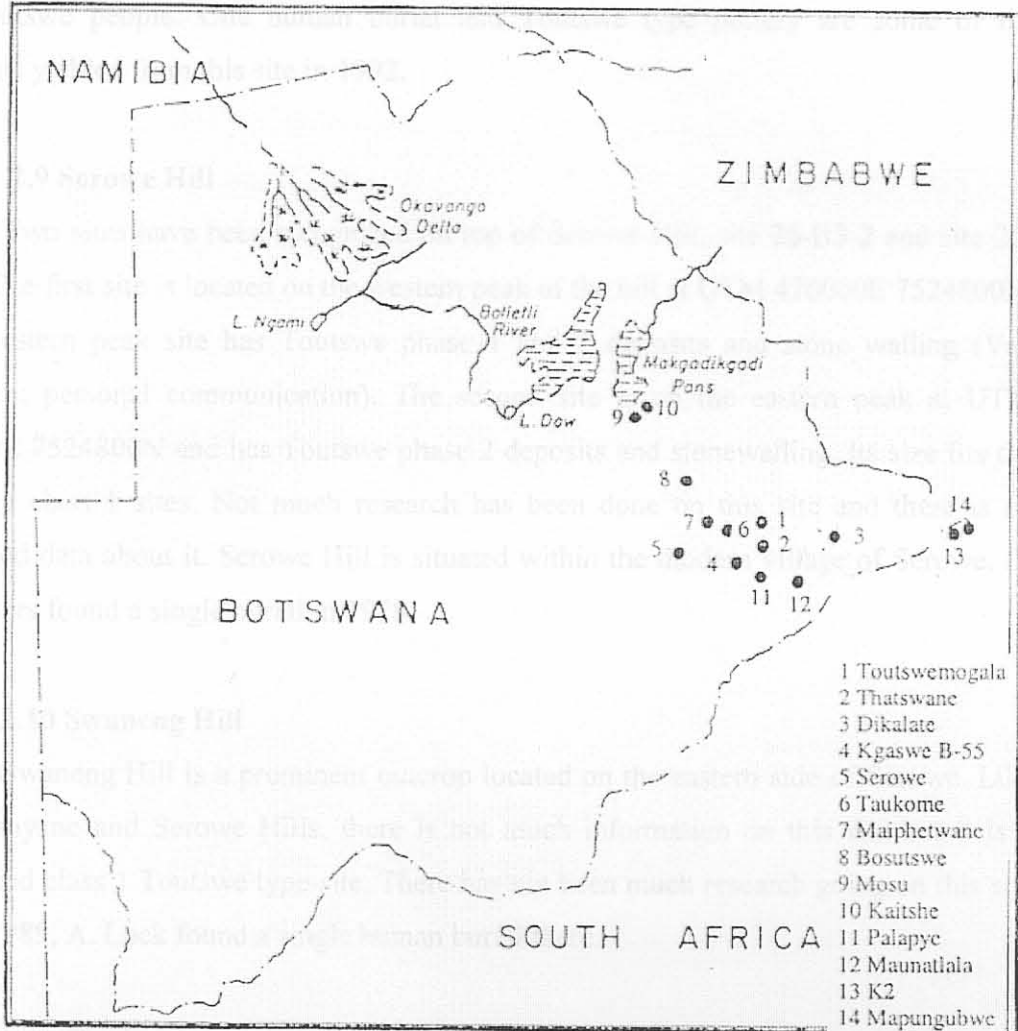
2.7 Mosu 3

Mosu is an area situated along the southeastern margins of the Sowa Pan (Figure 2.1). The area has been surveyed and excavated by Reid and Segobwe, professional archaeologists from the University of Botswana. A series of sites dated between the 9th and 13th centuries A.D. were found along the escarpment (Reid and Segobye 1997; 2000). These are possibly the northern most sites associated with Toutswe occupation and like other sites they were reoccupied at different time periods. The sites are mostly located on hilltops scattered around the southeastern margins of Sowa Pan. Two human burials were found on shallow graves, one at Mosu 1 (1997) and the other at Mosu 3 (1998).

2.8 Thataganyane Hill

Thataganyane Hill has a museum site number 26-03-3 and is located at UTM 470100E 7525300N. The site is situated on a small hill north of Serowe Hill within the village modern of Serowe. It is reported to have a Toutswe phase 1 and 2 (Van Waarden: personal communication). Unfortunately there has not been much excavations and reports based

Figure 2.1 Some Toutswe sites in east central Botswana



Work on the Kgaswe sites began in 1982 following a request by the Shell Oil Company for an archaeological reconnaissance of the area that was to be developed into a coal mine (Denbow 1983b). The reconnaissance work was carried out between the end of 1982 and the beginning of 1983 and a total of 65 archaeological sites were reported. Of these 65 sites, Kgaswe B-55 was excavated and mapped and it has been found to fall within the class 1 Toutswe type of sites.

2.8 Thataganyane Hill

Thataganyane Hill has a museum site number 26-B3-3 and is located at UTM 470100E 7525300N. The site is situated on a small hill north of Serowe Hill within the village modern of Serowe. It is reported to have a Toutswe phase 1 and 2 (Van Waarden: personal communication). Unfortunately there has not been much excavations and reports based on this site. The site appears to have been one of the class 1 marginal settlements of the Toutswe people. One human burial and Toutswe type pottery are some of the materials yielded from this site in 1992.

2.9 Serowe Hill

Two sites have been recognized on top of Serowe Hill, site 26-B3-2 and site 26-B3-1. The first site is located on the western peak of the hill at UTM 470000E 7524800N. This western peak site has Toutswe phase 1 and 2 deposits and stone walling (Van Waarden; personal communication). The second site is on the eastern peak at UTM 470300E 7524800N and has Toutswe phase 2 deposits and stonewalling. Its size fits the Toutswe class 1 sites. Not much research has been done on this site and there is no published data about it. Serowe Hill is situated within the modern village of Serowe. D. Schermers found a single burial in 1978.

2.10 Swaneng Hill

Swaneng Hill is a prominent outcrop located on the eastern side of Serowe. Like Thataganyane and Serowe Hills, there is not much information on this site but it is a confirmed class 1 Toutswe type-site. There has not been much research going on this site but in 1989, A. Lock found a single human burial there.

2.11 Kgaswe B-55

Work on the Kgaswe sites began in 1982 following a request by the Shell Oil Company for an archaeological reconnaissance of the area that was to be developed into a coal mine (Denbow 1983b). The reconnaissance work was carried out between the end of 1982 and the beginning of 1983 and a total of 65 archaeological sites were reported. Of these 65 sites, Kgaswe B-55 was excavated and mapped and it has been found to fall within the class 1 Toutswe type of sites.

It has a low lying midden of approximately 7000 square meters which is about one meter deep (Denbow 1983b; 1990). The central midden had been disturbed by rodent activities and was under threat of advancing farming activities by people who were living around it at the time. It was recommended that the entire site be excavated by heavy plant machinery so as to be able to map it and also because there was not enough time to perform the conventional way of excavating (Denbow; personal communication).

The site provides a unique and complete picture of settlement layout of one the Toutswe tradition sites. House remains surrounded a central midden and among other things found on the midden, were male burials. Female burials were placed on the outer boundary of the site (Denbow 1986; 1990; Reid 1998). Figure 2.5 shows the settlement layout of the site with male burials in the central midden (Denbow 1986; 1990). Remains of 19 houses and 27 burials were found. One of the house structures had in it a complete pot containing over 2600 glass beads, 5000 ostrich egg shell beads and about 50 meters of wound wire necklace. Nothing of this sort has ever been found on any Iron Age sites in southern Africa (Denbow 1986; 1990; Reid 1998).

Figure 2.2 Aerial view of a portion of Toutswe site, courtesy of JR Denbow

Figure 2.2 Aerial view of Toutswe Mogala (photo courtesy of JR Denbow)

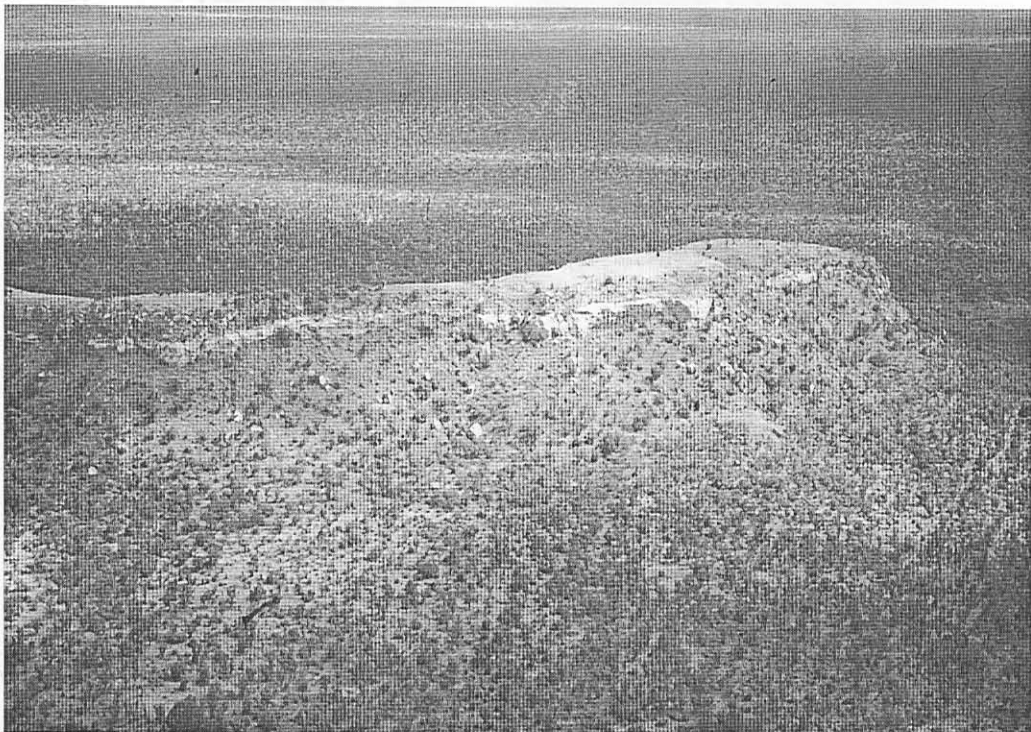


Figure 2.3 Bosutswe viewed from the south (photo courtesy of JR Denbow)

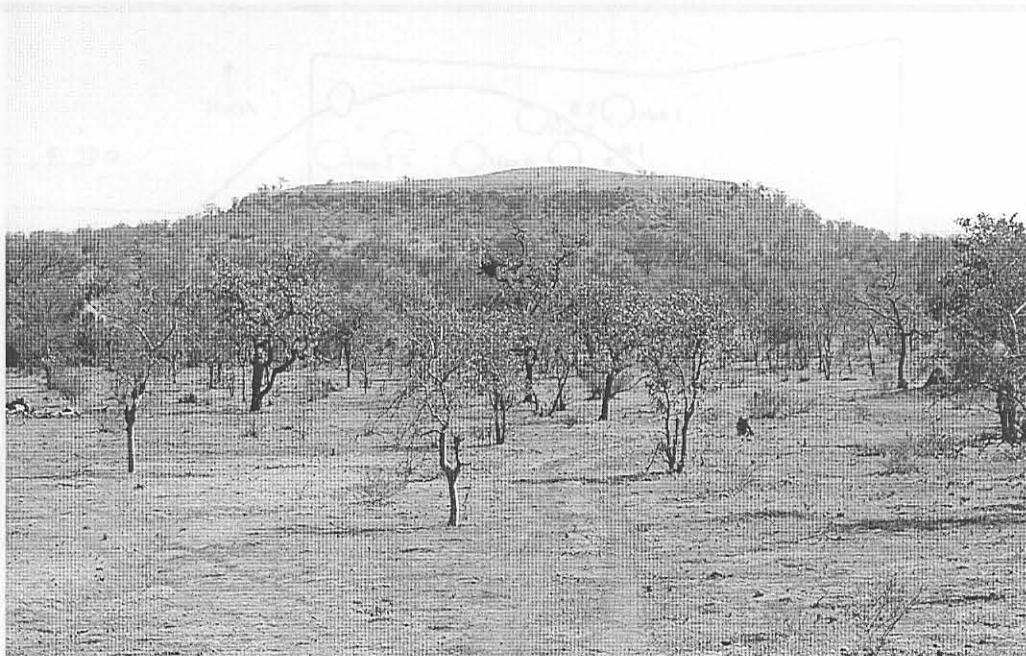
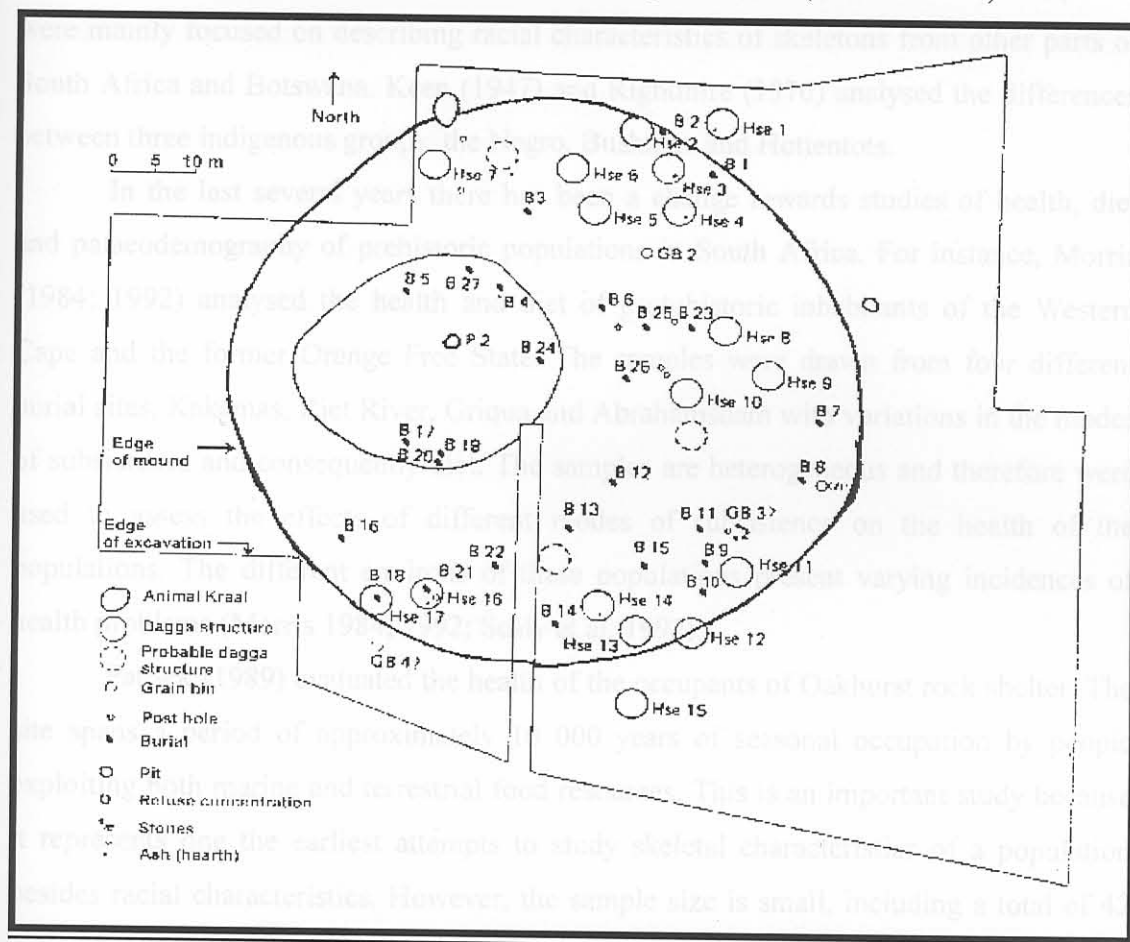


Figure 2.4 Base of excavation unit at Thatswane (photo courtesy of JR Denbow)



Figure 2.5 Map of features and burials at Kgaswe B-55 (Denbow 1999)



Most of the earliest studies on human skeletal remains in South Africa were focused mainly on identifying skeletons in terms of their racial or ethnic affiliation and to a lesser extent on age and sex. Archaeologists and anthropologists were mainly interested in classifying ceramics and then using racial or ethnic identities defined from human skeletal remains to equate ceramic traditions to specific ethnic or racial groups (Galloway 1937; 1959; Keen 1947; Singer 1958; Gardner 1963; De Villiers 1976).

Galloway analysed human skeletal remains from K2 and Mapungubwe and the main purpose of his study was to assess the cranial characteristics of the individuals so as to describe the racial characteristics of prehistoric inhabitants of the area (Galloway 1937; 1959). The study concluded that most of the individuals were of Bush-Boskop affinity with Negroid characteristics. A latter study by Gardner was basically the same in terms of its objective and its conclusion was that the K2 people belonged to a proto-Hottentot

population (Gardner 1963). Other studies by Rightmire (1970) and De Villiers (1976) were mainly focused on describing racial characteristics of skeletons from other parts of South Africa and Botswana. Keen (1947) and Rightmire (1970) analysed the differences between three indigenous groups, the Negro, Bushmen and Hottentots.

In the last several years there has been a change towards studies of health, diet and palaeodemography of prehistoric populations in South Africa. For instance, Morris (1984; 1992) analysed the health and diet of protohistoric inhabitants of the Western Cape and the former Orange Free State. The samples were drawn from four different burial sites, Kakamas, Riet River, Griqua and Abrahamsdam with variations in the modes of subsistence and consequently diet. The samples are heterogeneous and therefore were used to assess the effects of different modes of subsistence on the health of the populations. The different environs of these populations present varying incidences of health problems (Morris 1984; 1992; Sealy et al. 1992).

Patrick (1989) evaluated the health of the occupants of Oakhurst rock shelter. The site spans a period of approximately 10 000 years of seasonal occupation by people exploiting both marine and terrestrial food resources. This is an important study because it represents one of the earliest attempts to study skeletal characteristics of a population besides racial characteristics. However, the sample size is small, including a total of 42 individuals and is therefore probably not representative of a once living population. Moreover it does not allow for an evaluation of changes in health, diet, mortality patterns and population growth of the 10 000 years of occupation.

Another example comes from the K2 and Mapungubwe human skeletons, which were studied by Steyn (1994). The sites are associated with the Late Iron Age period on the Limpopo basin. The occupants of these sites were agriculturalists who supplemented their diet with wild animals. Results of the health and palaeodemography of the K2 and Mapungubwe skeletons are given in detail in different chapters of this study since they were used for comparison with the Toutswe skeletons.

In northeast Africa, the skeletons from Sudanese Nubia have been studied extensively (e.g., Armelagos et al. 1972; Martin et al. 1984; 1985; Ariaza et al. 1993). A decade of excavations on Sudanese Nubian sites along the Nile River in the northern Africa has yielded hundreds of human skeletal remains spanning a period over 10 000 years. The Sudan sites provide one of the best profiles of the transition from Mesolithic

hunter gathering to domestication of plants and animals (Armstrong et al. 1972; Martin et al. 1984; 1985). From each phase of occupation, substantial samples of human skeletal remains of different ages and sexes have been found. Numerous studies of these skeletons have covered topical issues of skeletal growth (e.g., Armstrong et al. 1972) health and diet (Martin et al. 1984; 1985; Ariaza et al. 1993), nutrition, population growths, mortality patterns over time, and the effects of changes in modes of subsistence of population health and growth.

Materials excavated by archaeologists from UB are kept at the Archaeology Division of UB for some time before being forwarded to the museum. Materials used for this study were all obtained from these two institutions. It was mostly through the literature and the author's knowledge that it became known how many burials had been unearthed from which sites. Neither the BNMMA nor UB have catalogues for burials. The situation at the museum is worsened by moving up individual skeletons in the past, when rearranging the storage shelves. Most of the boxes containing human burials are not labeled as such and therefore many boxes had to be unopened in search of human remains. The skeletons from the burials were labeled on paper that was then stuck using tape. Most of the tapes had fallen off and thus making it even more difficult to identify the skeletons according to Leysen's system. It will not come as a surprise should more burials be found after completion of this study, because the author's access to the BNMMA and UB storage facilities was limited.

The literature was used to cross check the number of burials that were reported from different sites, and to use that as a basis for which boxes to search for relevant materials. For instance, Denbow (1983a) reported five burials from Tsoelike and therefore the search for Tsoelike burials was exhaustive until all burials had been found. On the other hand, other burials are known to have been discovered in the past especially by the university researchers but could not be found. In 1997 and 1998, for example, two burials were excavated at Mosu 1 and Mosu 3 respectively (Reid and Segobwe 1997, 2000) but the burial from Mosu 1 has been misplaced and was therefore not included in the current study sample. Table 3.1 summarises a list of burials known to have been excavated at various sites; some of which were not available for analysis. The total number of burials reported from each site, date of excavation and the researcher who excavated the burial(s) is indicated where possible.